

# Three new species of *Acacia* (Mimosaceae) from Western Australia

by A. B. Court\*

## Abstract

Three new species of *Acacia* from Western Australia (*A. anomala*, *A. flagelliformis* and *A. unifissilis*) are described and illustrated. Their affinities are discussed briefly and a note on the extreme rarity of *A. anomala* is included.

***Acacia anomala*** C. A. Gardner ex A. B. Court, sp. nov. (Figures 1 and 4).

*Frutex* parvus, erectus, ad 35 cm altus, ramis pluribus prope basim exorientibus; inferioribus plerumque  $\pm$  teretibus sed interdum paulo angulatis, interdum  $\pm$  striatis; superioribus manifeste alatis; alae ad 2 mm latae, phyllodia alata *A. willdenowianae* H. Wendl. simulates, glabrae. *Phyllodia* interdum nulla sed ubi praesentia articulata cum pulvino, nunc linearia nunc angusto-linearia, 40–100 mm longa et 3–7 mm lata, plerumque parum curvata, ad basim gradatim angustata et acumine parvo duro acuto terminata, supra centrum latissima, glabra, interdum leviter penninervia et nervo  $\pm$  centrale. *Stipulae* lanceolatae, late triangulares et acutae vel oblongae et obtusae, 1–1.5 mm longae et 0.3–1 mm latae, interdum obscurae. *Glans marginalis* obscura vel nulla. *Spicae* 15–25 mm longae et 6–9 mm diam. sub anthesi. *Pedunculi* 1–4 mm longi et ca 0.2 mm diam., glabri; a 3–4 bracteis scariosis striatis.  $\pm$  ovatis, 1–3 mm longis et ad ca 2 mm latis, interdum demum aurantescentibus, subtentae. *Bracteolae* nullae. *Calyx* irregulariter 4- vel 5-partitus, ca 1 mm longus; lobis non facile secedentibus, oblongis, ad 0.5 mm longis et 0.2–0.4 mm latis, obtusis, incurvatis praeter cilia minuta in apicem glabris. *Corolla* plerumque 5-partita, raro 4-partita; petala  $\pm$  lanceolata ellipticae, ca 2 mm longa et ca 0.8 mm lata, glabra, ad apicem paulo incrassata. *Ovarium* breviter stipitatum, glabrum,  $\pm$  ellipsoideale. *Legumina* et semina ignota.

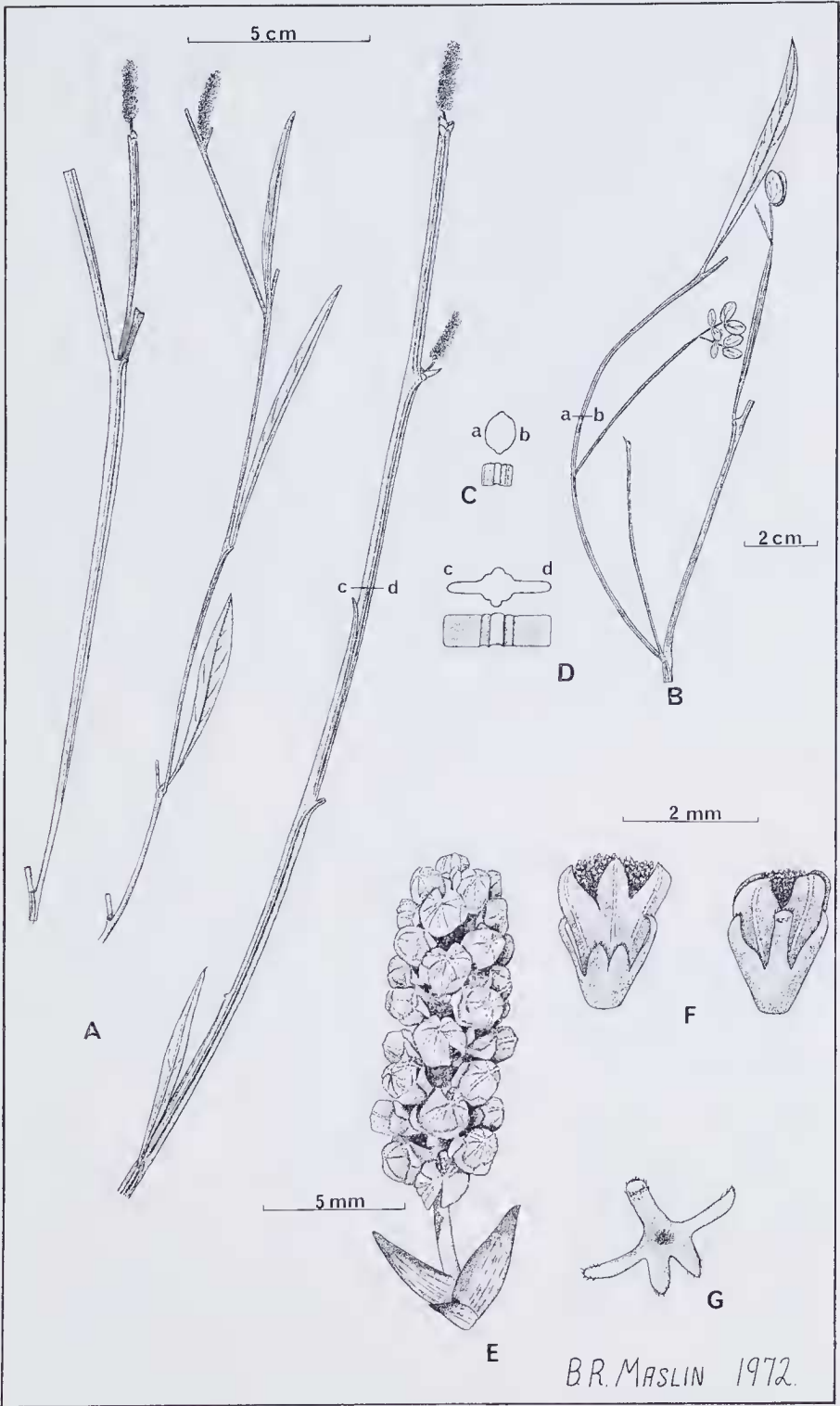
*Holotype*: Between Muchea and Chittering, Western Australia. In gravelly sand on sides of hills. August 1961 *H. H. Kretschmar* and *C. A. Gardner* s.n., fl. (PERTH—Herb. Gardnerianum).

Small erect *shrub* to 35 cm high with several stems arising from near the base; *lower stems* usually  $\pm$  terete but sometimes somewhat angled, sometimes  $\pm$  striate; *upper stems* prominently winged; wings to 2 mm wide, resembling the winged phyllodes of *A. willdenowiana* H. Wendl., glabrous. *Phyllodes* sometimes absent but when present then articulated and with a basal pulvinus, linear to narrow-linear, 40–100 mm long and 3–7 mm wide, usually slightly curved, narrowing gradually towards the base, broadest above the centre, glabrous, terminated by a small hard sharp point, sometimes faintly penninerved and with a  $\pm$  central midrib. *Stipules* lanceolate, broadly triangular and acute or oblong and blunt, 1–1.5 mm long and 0.3–1 mm wide, sometimes obscure. *Marginal gland* obscure or absent. *Spikes* 15–25 mm long and 6–9 mm diameter at anthesis. *Peduncles* 1–4 mm long and about 0.2 mm diameter, glabrous; peduncles subtended by 3–4 scarious, striated,  $\pm$  ovate bracts 1–3 mm long and to about 2 mm wide, sometimes becoming tinged with orange upon aging. *Bracteoles* absent. *Calyx* irregularly 4- or 5-partite, about 1 mm

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Figure 1. *Acacia anomala*. A—Three flowering branches. B—Young plant with juvenile foliage. C—Transverse section and surface view of young stem. D—Transverse section and surface view of mature stem. E—Inflorescence. F—Flowers, front and back views showing unequal lobing of calyx. G—Calyx (flattened out).

A, C–G from *H. H. Kretschmar* and *C. A. Gardner* s.n., Aug. 1961 (the type); B from *H. H. Kretschmar*, Aug. 1965.



long; lobes not separating easily, oblong, to 0.5 mm long and 0.2–0.4 mm wide, obtuse, incurved, glabrous except for minute cilia at the apex. *Corolla* usually 5-partite, rarely 4-partite; petals  $\pm$  lanceolate or elliptic, about 2 mm long and about 0.8 mm wide, glabrous, somewhat thickened towards their tips. *Ovary* shortly stipitate, glabrous,  $\pm$  ellipsoidal. *Legumes* and *seeds* not seen.

Flowering during August and September; fruiting period unknown.

*Specimens examined*: WESTERN AUSTRALIA: In glareosis prope Bullsbrook in collibus Darling Range, ix. 1966, C. A. Gardner s.n., fl. (PERTH); Muchea, Aug. 1965, H. H. Kretschmar s.n., fl. (PERTH); Bickley, Darling Range, W. H. Loaring s.n., fl. (PERTH).

It seems likely that *Acacia anomala* is now an extinct species or if it is not, then it is certainly extremely rare. This fact has prompted me to name and describe it as new even though no fruiting material has ever been found.

Presumably *A. anomala* is (or was?) confined to lateritic soils in the Darling Range near Perth where it is known from only two localities viz. about 4 km due east of Muchea (40 km NNE of Perth) and Bickley (22 km ESE of Perth).

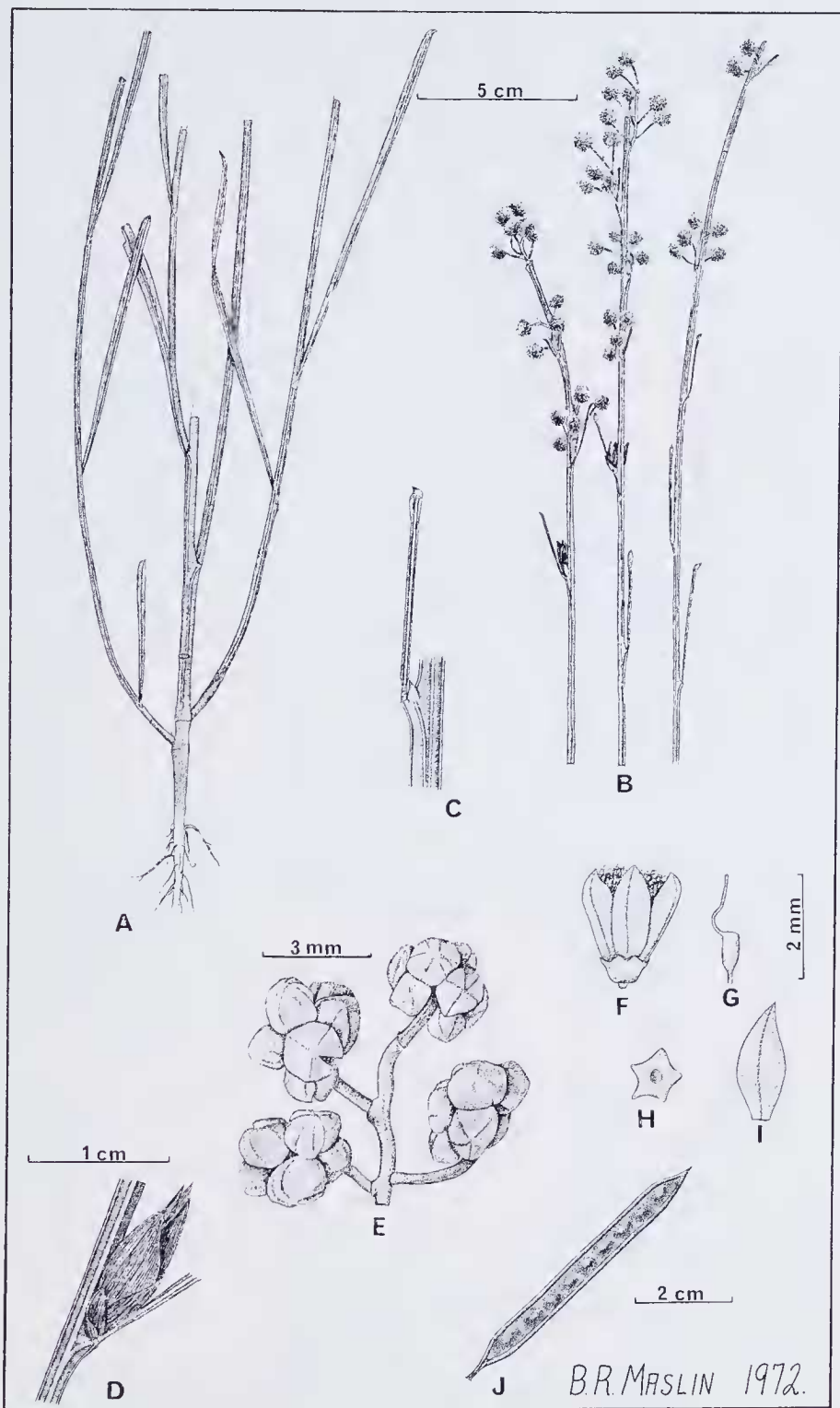
The affinities of this most interesting species are quite obscure. However, for the time being it will be placed in Bentham's series *Alatae* although it could be placed in his series *Juliflorae* perhaps with more justification. It is anomalous because its stems are often winged like those of *A. willdenowiana* H. Wendl. (syn.: *A. diptera* Lindl.) but it can be distinguished at once from that species by its spicate inflorescence. Sometimes phyllodes are present and then they are distinctly articulate on the stems. All specimens have small callous-like extensions to the stem-wings and in this respect *A. anomala* resembles *A. willdenowiana* in particular. Its relationships in the *Juliflorae* are quite unknown to me.

***Acacia flagelliformis* A. B. Court, sp. nov.** (Figures 2 and 4).

*Frutex* apertus, erectus, 0.4–1.3 m altus, interdum ramis multis ex vel prope basim exorientibus; inferioribus  $\pm$  teretibus sed interdum  $\pm$  angulatis vel distincte costatis, interdum viridibus vel  $\pm$  ferrugineis; superioribus plerumque ad angulum ca 30–35° ex axe finitimo exorientibus, distincte angulatis, costatis alatisve, glabris vel interdum paulo asperulatis,  $\pm$  flavoviridentibus. *Stipulae* triangulares, 0.6–1.2 mm longae, planae,  $\pm$  acutae, virides vel ferrugineae vel obscurae. *Phyllodia* saepe nulla sed cum praesentia interdum e caulibus vix dissimilia, angusto-linearia, 20–110 mm longa et plerumque 0.6–1.5 mm lata, raro ad 5 mm lata, recta, interdum ad apices dilatata, plerumque erecta, nunc obtuse quadrangulata nunc distincte compressa, glabra, in caule articulata, 4-nervata; apex plerumque obtusus interdum uncinatus. *Glans marginalis* obscura vel nulla. *Bracteae* quae racemos juvenes includunt usque ad 10, plerumque equitantes imbricatae, ovatae vel lanceolatae, inferiores ca 1.5 mm longae et superiores fere 10 mm longae, majores plerumque pedunculos singulos subtentes sed mox cadentes, scariosae, subtiliter striatae, acutae, saepe ad bases angustatae, glabrae, plerumque ferrugineae in dimidiis superioribus et infra pallidiores. *Racemi* ad 30 mm longi, plerumque cum 4–9 capitulis. *Rachis* teres vel interdum sulcata, glabra. *Capitula* globulosa, 5–10 mm diam. sub anthesi, ex 6–9 floribus cum pedicellis glabris minus quam 0.3 mm longis et 0.3 mm diam. constantia. *Bracteolae* florales nullae. *Calyx*  $\pm$  cupulatus cum lobis obtusis, lobis non facile secedentibus,  $\pm$  diaphanus, ca 0.3–0.5 mm longus, glaber. *Corolla* 5-partita; petala facile secedentia,  $\pm$  lanceolato-elliptica,  $\pm$  diaphana, 2–2.3 mm longa et 1–1.3 mm lata, glabra, luteola, costibus centralibus  $\pm$  obscuris. *Ovarium* ellipsoideale, breviter stipitatum, glabrum. *Legumina* angusto-linearia, 40–50 mm longa et 6 mm lata, 8–9 semina capientia, distincte compressa, super semina convexa, in apices acuminatos longos subtiles extensa,  $\pm$  olivacea; *margines* leguminum incrassati, inter semina non angustati,

Figure 2. *Acacia flagelliformis*. A–B—Young plant. C—Portion of upper branch (inflorescence removed) showing reduced phyllode with stipule at its base. D—Developing inflorescence showing large bracts (completely enclosing young flower-heads). E—Inflorescence. F—Flower. G—Gynoecium. H—Calyx (flattened out). I—Petal. J—Legume.

A–C from E. Dell s.n., June 1929; D–I from B. R. Maslin 457; J from F. W. Went 52.



hepatici. *Semina* longitudinalia vel parum obliqua, elliptica, ca. 3.5 mm longa et 2.5 mm lata, compressa, laevia, porphyrea; *pleurogramma* non conspicua; *areola* ca 2 mm longa et 1 mm lata; *funiculus* ca 1 mm longus et 0.2–0.3 mm diam., luteolus flexo uno, in *arillum* ± clavatum incrassatus.

*Type*: 0.6 km S of Bussell Highway on Ruabon Road (between Bunbury and Busselton), Western Australia. White sandy loam in swampy area. 3 Sept. 1972, *B. R. Maslin* 2811, fl. et fr. (holo: PERTH; iso: CANB, K).

Open, erect *shrub* 0.4–1.3 m high, sometimes much branched at or near the base; lower stems ± terete but sometimes ± angled or distinctly ribbed, sometimes green or ± red-brown; *upper stems* usually arising at an angle of about 30–35° or less with the adjacent axis, distinctly angled, ribbed or winged, glabrous or occasionally slightly asperulate, ± yellowish green. *Stipules* triangular, 0.6–1.2 mm long, flat, ± acute, green or red-brown, sometimes obscure. *Phyllodes* often absent but when present sometimes scarcely distinguishable from the stems, narrow-linear, 20–110 mm long and usually 0.6–1.5 mm wide, rarely to 5 mm wide, straight, sometimes broadening towards the apex, usually erect, distinctly flattened to obtusely quadrangular, glabrous, articulated, 4-nerved (1-nerved on each margin, 1-nerved on each face); *apex* normally blunt but sometimes uncinat. *Marginal gland* obscure or absent. *Bracts* enclosing the young racemes to 10 in number, mostly equitant or imbricate, ovate or lanceolate, the lower ones about 1.5 mm long and the upper nearly 10 mm long, each of the larger bracts usually subtending a peduncle but soon falling away, scarious, finely striate, acute, often narrowed at base, glabrous, usually red-brown in the upper half and paler below. *Racemes* to 30 mm long, usually with 4–9 flower-heads. *Rachis* terete or occasionally grooved, glabrous. *Flower-heads* globular, 5–10 mm diameter at anthesis, consisting of 6–9 flowers with glabrous pedicels less than 0.3 mm long and 0.3 mm diameter. *Bracteoles* absent. *Calyx* ± cupular with broad blunt lobes which do not readily separate, ± diaphanous, about 0.3–0.5 mm long, glabrous. *Corolla* 5-partite; petals readily separating, ± lanceolate-elliptic, ± diaphanous, 2–2.3 mm long and 1–1.3 mm wide, glabrous, pale yellow, midrib ± obscure. *Ovary* ellipsoidal, shortly stipitate, glabrous. *Legumes* narrow-linear, 40–50 mm long and 6 mm wide, containing 8–9 seeds, distinctly flattened, convex over the seeds, drawn out into a fine acuminate point, ± green-brown; *margins* of legume thickened, not constricted between the seeds, pale yellow-brown. *Seeds* longitudinal or slightly oblique in legume, about 3.5 mm long and 2.5 mm wide, flattened, smooth, red-brown; *pleurogram* not conspicuous, horseshoe-shaped; *areole* about 2 mm long and 1 mm wide; *funicle* about 1 mm long and 0.2–0.3 mm diameter, pale yellow, once-folded and thickened into a ± clavate *aril*.

Flowering during June and fruiting during September.

*Selected specimens examined*: WESTERN AUSTRALIA: Argyle, vi. 1929, *E. Dell* s.n., fl. (PERTH); in gravelly soil 12.3 mi (20 km) W of Donnybrook on the road to Capel, 9.vi.1970, *B. R. Maslin* 454, fl. (PERTH); in gravelly sand along a creek bed with *A. extensa* Lindl., 12.6 mi (20 km) W of Donnybrook on the road to Capel, 9.vi.1970, *B. R. Maslin* 457, fl. (PERTH); along roadside in grey clayey loam, 1.6 km E of Nannup-Busselton road towards Tutunup, 3.ix.1972, *B. R. Maslin* 2817, fl. (CANB, NSW, PERTH); in swamp near Jindong, ca. 18 km due SW of Busselton, 8.vi.1973, *B. R. Maslin* 3211, fl. (AD, E, K, PERTH); in dry sclerophyll forest, Whicher Range, 33°52'S, 115°15'E, 19.vii.1973, *J. Pulley* 1528 (CBG 052701); roadside near Busselton, 13.ix.1962, *F. W. Went* 52, fl. et fr. (PERTH).

*Acacia flagelliformis* has been collected in a number of swamps along the southern extremity of the Swan Coastal Plain between Ruabon (11 km due E of Busselton) and Jindong (18 km due SW of Busselton). It has also been collected in the adjacent Whicher and Darling Ranges and in these areas it is normally associated with water courses.



This plant bears a remarkable resemblance to grass culms but it is not caespitose. Generally it is quite insignificant but sometimes it forms dense colonies along the roadside.

Its affinities appear to lie with *Acacia restiacea* Benth. but it differs from that species in its usually thinner stems, longer racemes, fewer flowers in the head, diaphanous calyx and its much thinner pods.

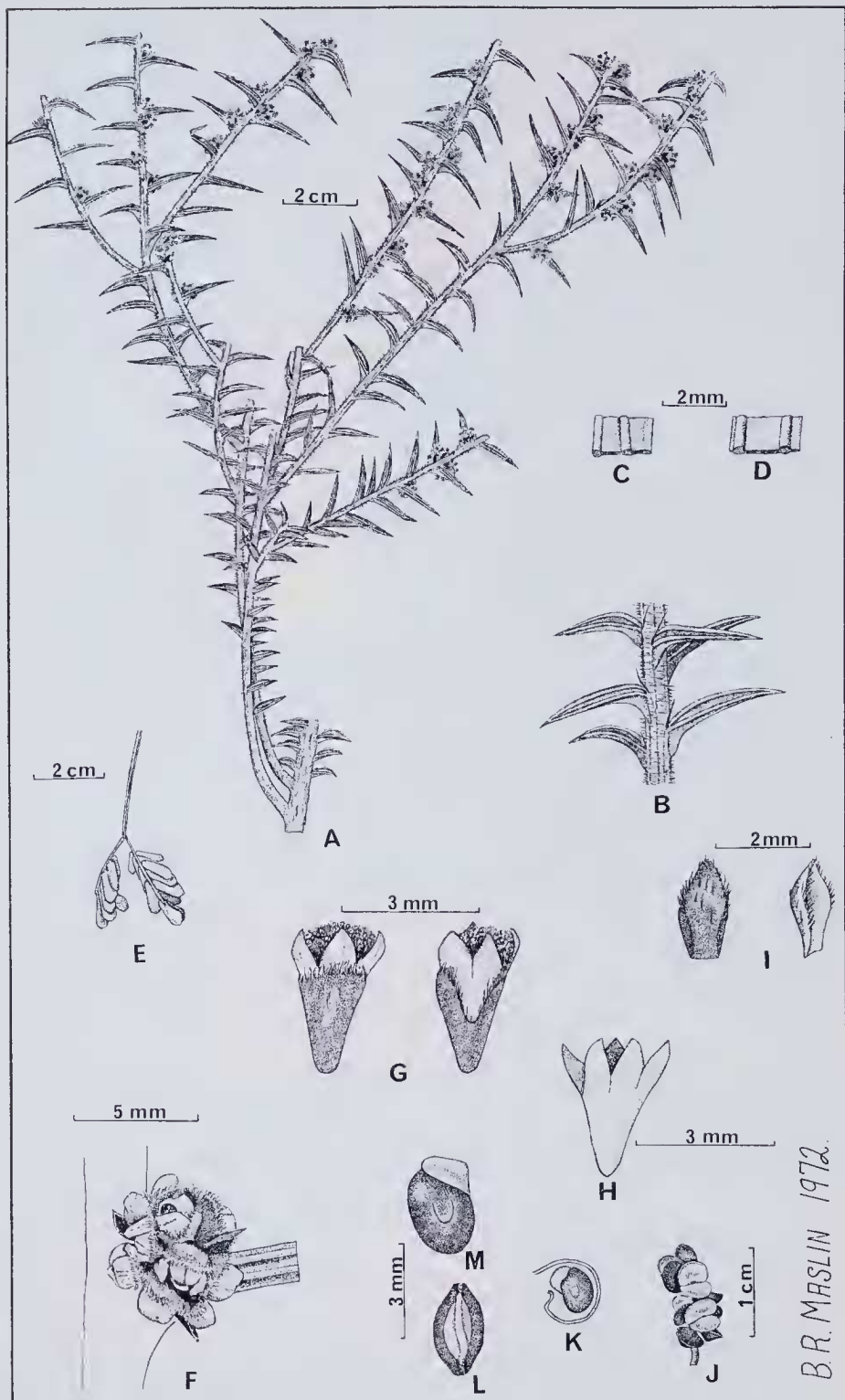
**Acacia unifissilis** A. B. Court, sp. nov. (Figures 3 and 4).

*Frutex* compactus expanseus, 15–60 cm altus, ramis plerumque 2–6 prope basim exorientibus, inferioribus  $\pm$  erectis et teretibus, plerumque albidis vel cano-pubescentibus, aut interdum pubertem sparsam pro parte maxima in nervos flavidos  $\pm$  prominentes aut in strias longitudinales ferentes, superioribus plerumque erectis, rigidis,  $\pm$  teretibus vel angulatis, praecipue in nervos  $\pm$  flavidos albidopubescentibus atque inter eosdem manifeste farinosos. *Folia juvenalia* bipinnata, ca 50 mm longa et 20–25 mm lata,  $\pm$  glauca; *petioli*  $\pm$  angulati, glabri; *pinnae* 1-jugae, 20–25 mm longae at 10–12 mm latae; *glandibus* singulis obscuris nullisque; *rhachis pinnarum*  $\pm$  angulata, glabra; *pinnae* 4–6-jugae, plerumque obovatae, glabrae vel subglabrae, interdum acuminibus singulis minutis duris  $\pm$  acutis, petiolis brevissimis, plerumque nervis obscuris  $\pm$  centralibus. *Stipulae* subulatae vel  $\pm$  setaceae, 1.5–4 mm longae et 0.1–0.5 mm latae, plerumque chartaceae et fuscae vel fumosae, marginibus plerumque ciliatis et interdum hyalinis. *Phyllodia* asymmetrica, triangularia subulatae, 8–30 mm longa, 1.5–3 mm lata ad bases, rigida, plerumque leniter interdum valde recurvata vel etiam tortilia sed numquam recta, distincte complanata ad fere pentagona, interdum sparsim pubescentia et saepe asperulata, saepe flavovirentia, plerumque breviter interdum  $\pm$  late decurrentia, plerumque in acumina acuta obliqua  $\pm$  abrupte terminantia et interdum ad bases angustata; *nervis* 5–6 in quoque phyllodio (utraque facie 2-nervata, margine abaxiali 1-nervato, adaxiali enervio vel obscure 1-nervato), flavescens, ad apicem coalescentibus et in acuminem durum pungentem productis, saepe in quoque facie nervo supero prope marginem adaxialem posito et siccitate costam latam marginalem facienti. *Glans marginalis* obscura nullave. *Pedunculi*  $\pm$  teretes, minus quam 1 mm longi et 1 mm diam., dense candido-pubescentes; a bracteis  $\pm$  ovatis, chartaceis, brunneis, ca 3 mm longis et 2 mm latis, plerumque subtiliter striatis subnatis. *Capitula* saepe in fasciculis axillaribus, globulosa vel obloidea, 4–8 mm diam. sub anthesi, ex 8–20 floribus constantia. *Bracteolae*  $\pm$  ovatae, ca 2 mm longae et 1.2–1.5 mm latae, parum concavae, chartaceae, plerumque subtiliter striatae, acutae, interdum laciniae, brunneae cum aliquot pilis dispersis et marginibus  $\pm$  ciliatis. *Calyx* integer,  $\pm$  cupulatus vel turbinatus sed parum obliquus ut latus abaxiale quam latus adaxiale fissum longius sit, ca 1.5–2 mm longus, initio adaxiale sed postea irregulariter in aliquot lobos  $\pm$  inaequales findens, plerumque subtiliter striatus, fere glaber praeter margines valde ciliatos, porphyreus. *Corolla* pentamera; petala secus ipsorum longitudinem fere dimidium libera sed facile ad basin corollae fidentia, anguste oblonga, 2.5–3.2 mm longa et 0.6–1 mm lata, dilutiora quam calycem, interdum incurvata, ad apices incrassata; ovarium ellipsoideum, sessile, glabrum. *Legumina* irregulariter torsiva vel tortilia ut non extenduntur, cum tortis ca 10–15 mm longa et 5–10 mm lata, 4–8 semina plerumque capientia; valvae leguminis  $\pm$  compressae super semina, ca 4–5 mm latae,  $\pm$  tenues, rugulosae, umbrinae, parum angustatae inter semina. *Semina*  $\pm$  ellipsoidalia sed oblique truncata prope funiculos, ca 3–4 mm longa et 2–3 mm diam., manifeste porcata, laevia; *pleurogramma* conspicua; *areola* ca 1 mm longa et 0.7 mm lata; *funiculus* filamentosus,  $\pm$  rectus, minus quam 0.1 mm diam. et ca 0.5 mm longus, pallidus, in arillum incrassatus; *arillus* obliquus, pallidus,  $\pm$  turbinatus, ca 1.5–2 mm altus et 1.5 mm diam.

*Holotype*: About 6 mi (9.6 km) E of Rabbit Proof Fence No. 1 (E of Muntadgin) towards Mt. Hampton, Western Australia. 5 Aug. 1971, B. R. Maslin 1826, fl. et fr. (PERTH).

Flowering from July until September and fruiting from November until March.

Compact, erect or spreading *shrub* 15–60 cm high, usually with 2–6 branches arising from near the base; lower branches  $\pm$  erect, terete or almost so, usually white- or grey-pubescent or occasionally with sparse pubescence mainly restricted to the  $\pm$  prominent yellowish nerves or longitudinal markings; *upper branches* usually erect, rigid,  $\pm$  terete or somewhat angled, white-pubescent mainly along the  $\pm$  yellowish nerves and prominently farinaceous between them. *Juvenile leaves* bipinnate, about 50 mm long and 20–25 mm wide,  $\pm$  glaucous; *petiole*  $\pm$  angled, glabrous; *pinnae* 1 pair, 20–25 mm long and 10–12 mm wide; *gland* obscure or absent; *pinna rachis*  $\pm$  angled, glabrous;



B.R. MARSLIN 1972.

*pinnules* 4–6 pairs, generally obovate, glabrous or almost so, sometimes with a minute hard  $\pm$  acute point, very shortly stalked, usually with an obscure  $\pm$  central nerve. *Stipules* subulate or  $\pm$  setaceous, 1.5–4 mm long and 0.1–0.5 mm wide, usually chartaceous and dark brown or grey, margins usually ciliate and sometimes hyaline. *Phyllodes* asymmetric, triangular or subulate, 8–30 mm long, 1.5–3 mm wide at base, rigid, usually gently recurved but sometimes strongly so or even twisted but rarely straight, distinctly flattened to almost pentagonal, occasionally sparsely pubescent and often asperulate, often yellowish green, usually shortly decurrent but occasionally  $\pm$  broadly decurrent, usually terminated  $\pm$  abruptly in a sharp oblique point and sometimes narrowed at the base; *nerves* 5–6 to each phyllode (2-nerved on each face, abaxial margin 1-nerved, adaxial margin nerveless or obscurely 1-nerved), yellowish, coalescing towards the apex and then extended into a hard sharp point, often the upper nerve on each face situated close to the adaxial margin and on drying forming a broad upper marginal rib. *Marginal gland* obscure or absent. *Peduncles*  $\pm$  terete, less than 1 mm long and 1 mm diameter, densely white-pubescent; subtended by  $\pm$  ovate, chartaceous, very finely striate, brown bracts about 3 mm long and 2 mm wide. *Flower-heads* often in axillary clusters, globular or obloid, 4–8 mm diameter at anthesis, consisting of 8–20 flowers. *Bracteoles*  $\pm$  ovate, about 2 mm long and 1.2–1.5 mm wide, somewhat concave, chartaceous, usually finely striate, acute, occasionally lacinate, brown, with a few scattered hairs, margins  $\pm$  ciliate. *Calyx* entire,  $\pm$  cupulate or turbinate but somewhat oblique with the abaxial side longer than the cleft adaxial side, about 1.5–2 mm long, splitting easily adaxially at first but later irregularly into several  $\pm$  unequal lobes, usually finely striate, essentially glabrous except for the markedly ciliate margins, red-brown. *Corolla* 5-partite; petals connate for about half their length but separating easily to the base, narrowly oblong, 2.5–3.2 mm long and 0.6–1 mm wide, paler than the calyx, sometimes incurved, thickened towards the apex; ovary ellipsoidal,  $\pm$  sessile, glabrous. *Legumes* irregularly coiled or twisted so that they cannot be straightened out, about 10–15 mm long and 5–10 mm wide in the distorted state, usually containing 4–8 seeds; valves of legume  $\pm$  compressed over the seeds, about 4–5 mm wide, thin, somewhat rugose, dark brown, somewhat narrowed between the seeds. *Seeds*  $\pm$  ellipsoidal but obliquely truncated near the funicle, about 3–4 mm long and 2–3 mm diameter, prominently ridged, smooth, pale brown; *pleurogram* conspicuous, horseshoe-shaped; areole about 1 mm long and 0.7 mm wide; *funicle* filamentous,  $\pm$  straight, less than 0.1 mm diameter and about 0.5 mm long, pale, thickened into a oblique, pale,  $\pm$  turbinate *aril* about 1.5–2 mm high and 1.5 mm diameter.

*Selected specimens examined:* WESTERN AUSTRALIA: S of Merredin on Narembene road, 8.vii.1966, *A. M. Ashby* 1803, fl. (PERTH); between Pingrup and Lake Magenta SE of Lake Grace, 23.ix.1933, *W. E. Blackall* 3078, fl. (PERTH); on sandplain, S of Twertup Creek, Fitzgerald River Reserve, 11.vii.1970, *A. S. George* 9910, fl. (PERTH); north of Bending, 21.xi.1962, *F. Lullfitz* 1761, fr. (PERTH); ca. 6.5 mi (10.5 km) W of Holt Rock on the road to Hyden (E of Hyden), 14.vii.1970, *B. R. Maslin* 565, fl. (PERTH); in white sand 8 mi (12.8 km) N of Kellerberrin on the road to Yelbeni, 16.vii.1970, *B. R. Maslin* 590, fl. et fr. (PERTH); in sand, 22 mi (35 km) NE of Ongerup, 13.ix.1964, *K. Newbey* 3042, fl. (PERTH); 30 mi (48 km) from Ravensthorpe towards Lake King, 14.ix.1971, *S. Paust* 825, fl. (PERTH); in sandy soil in the Fitzgerald River Reserve at the junction of the Susetta and Fitzgerald (rivers), 14.vii.1970, *R. D. Royce* 9005, fl. (PERTH); causeway in the middle of Lake King, 15.viii.1968, *R. A. Saffrey* 582, fl. et fr. (PERTH); on densely vegetated sandplain in cream sand over laterite, 0.5 mi (0.8 km) E of Newdegate towards Lake King, 28.viii.1973, *M. D. Tindale* 3761, fl.

Figure 3. *Acacia unifissilis*. A—Portion of branch system. B—Close-up of branch. C–D—Surface of phyllode showing variability in position of the primary nerves. E—Juvenile leaf. F—Sessile flower-head. G—Flowers (note cleft calyx). H—Corolla. I—Bracteoles (surface and side views). J—Legume. K—Seed in legume. L—Seed (top view). M—Seed side view).

A–C from *B. R. Maslin* 1826 (the type); D–I from *A. S. George* 9910; J–M from *M. D. Tindale* 238 and *B. R. Maslin*.



(A, AD, CBG 059339, K, NSW 107662—orig. spec., PERTH, US); in white sandy soil on a plain with scrub dominated by *Eucalyptus tetragona*, 11.9 mi (19.1 km) SSE of Lake King township on main road to Ravensthorpe, 28.viii.1973, M. D. Tindale 3783, fl. et fr. (CBG 059338, K, NSW—orig. spec., PERTH); on white sand beside Lake King (on) western side of causeway, 20.iii.1970, M. D. Tindale 238 and B. R. Maslin, fr. (NSW 104618—orig. spec., (PERTH); sandy heath, 15 mi (24 km) west of Ravensthorpe, 30.viii.1965, E. Wittwer 454, fl. (PERTH).

*Acacia unifissilis* is a relatively common species in the central and southern wheatbelt regions extending from near Kellerberrin to Ravensthorpe. It is common in sandy regions.

This species belongs to Bentham's series *Alatae* and *Acacia incurva* seems to be its closest relative. It differs from *A. incurva* in its white-pubescent branchlets, 5–6-nerved phyllodes, irregularly split calyx, 5-partite corolla and irregularly contorted pod. In *A. incurva* the uppermost branches are almost glabrous, the phyllodes are 4-nerved, the calyx is regularly 4-lobed, the corolla is 5-partite and the pod is never contorted.

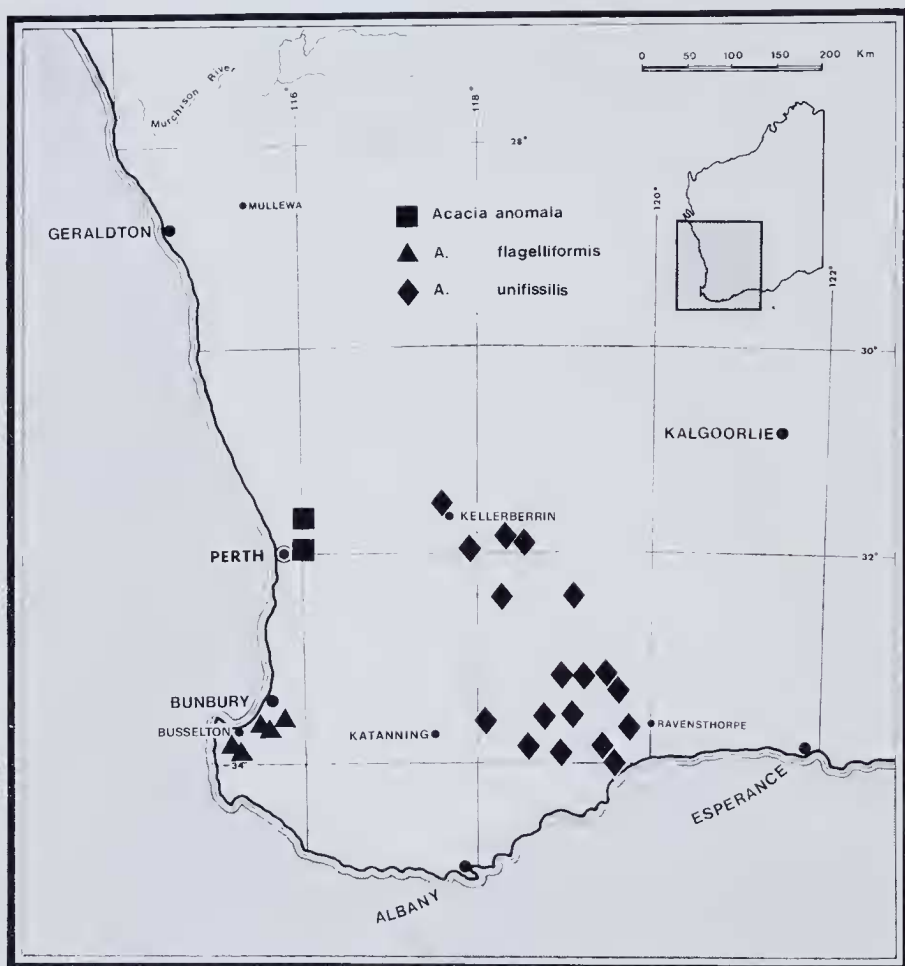


Figure 4. Distribution of *Acacia anomala*, *A. flagelliformis* and *A. unifissilis*.

### Acknowledgments

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